

CLAIMS

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1. A method comprising steps of:
2 supplying a sequence of code symbols to a rate decision block;
said rate decision block determining a plurality of frame energies for said
4 sequence of code symbols, each of said plurality of frame energies corresponding
to one of a plurality of tentative frame rates;
6 said rate decision block determining at least one final frame rate when said
plurality of frame energies meet a desired condition.
 2. The method of claim 1 wherein said supplying step is performed by
2 a Viterbi decoder.
 3. The method of claim 1 wherein each of said plurality of tentative
2 frame rates is selected from the group consisting of a full rate, a half rate, a
quarter rate, and an eighth rate.
 4. The method of claim 1 wherein said final frame rate is selected
2 from the group consisting of a zero rate, a non-zero rate, a full rate, a half rate, a
quarter rate, and an eighth rate.
 5. The method of claim 1 wherein said rate decision block determines

2 said at least one final frame rate when said plurality of frame energies and a pilot
channel energy meet said desired condition.

6. The method of claim 1 wherein said desired condition indicates
2 whether a combination of said plurality of frame energies exceeds a threshold
energy.

7. The method of claim 6 wherein said combination of said plurality
2 of frame energies comprises obtaining respective results of multiplications of each
one of said plurality of frame energies by respective parameters and adding said
4 respective results.

8. The method of claim 1 wherein said desired condition indicates
2 whether a combination of said plurality of frame energies and a pilot channel
energy exceed a threshold energy.

9. The method of claim 8 wherein said combination of said plurality
2 of frame energies and said pilot channel energy comprises obtaining respective
results of multiplications of each one of said plurality of frame energies and said
4 pilot channel energy by respective parameters and adding said respective results.

10. A method comprising steps of:
2 receiving a sequence of code symbols;

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4 determining a plurality of CRC values for said sequence of code symbols,
each of said plurality of CRC values corresponding to one of a plurality of
tentative frame rates;

6 determining a plurality of Yamamoto quality values for said sequence of
code symbols, each of said plurality of Yamamoto quality values corresponding
8 to one of said plurality of tentative frame rates;

10 determining a plurality of re-encoded symbol error rates for said sequence
of code symbols, each of said plurality of re-encoded symbol error rates
corresponding to one of said plurality of tentative frame rates;

12 determining a plurality of frame energies for said sequence of code
symbols, each of said plurality of frame energies corresponding to one of said
14 plurality of tentative frame rates;

16 determining a final frame rate of said sequence of code symbols based on
said plurality of CRC values, said plurality of Yamamoto quality values, said
plurality of re-encoded symbol error rates, and said plurality of frame energies.

11. The method of claim 10 wherein said sequence of code symbols are
2 supplied by a Viterbi decoder.

12. The method of claim 10 wherein each of said plurality of tentative
2 frame rates is selected from the group consisting of a full rate, a half rate, a
quarter rate, and an eighth rate.

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13. The method of claim 10 wherein said final frame rate is selected
2 from the group consisting of a zero rate, a non-zero rate, a full rate, a half rate, a
quarter rate, and an eighth rate.

14. A method comprising steps of:
2 receiving a sequence of code symbols;
determining a plurality of CRC values for said sequence of code symbols,
4 each of said plurality of CRC values corresponding to one of a plurality of
tentative frame rates;
6 determining a plurality of frame energies for said sequence of code
symbols, each of said plurality of frame energies corresponding to one of said
8 plurality of tentative frame rates;
determining a final frame rate of said sequence of code symbols based on
10 said plurality of CRC values and said plurality of frame energies.

15. The method of claim 14 wherein said sequence of code symbols are
2 supplied by a Viterbi decoder.

16. The method of claim 14 wherein each of said plurality of tentative
2 frame rates is selected from the group consisting of a full rate, a half rate, a
quarter rate, and an eighth rate.

17. The method of claim 14 wherein said final frame rate is selected

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2 from the group consisting of a zero rate, a non-zero rate, a full rate, a half rate, a
quarter rate, and an eighth rate.

18. A method comprising steps of:

2 receiving a sequence of code symbols;

determining a plurality of Yamamoto quality values for said sequence of
4 code symbols, each of said plurality of Yamamoto quality values corresponding
to one of a plurality of tentative frame rates;

6 determining a plurality of frame energies for said sequence of code
symbols, each of said plurality of frame energies corresponding to one of said
8 plurality of tentative frame rates;

determining a final frame rate of said sequence of code symbols based on
10 said plurality of Yamamoto quality values and said plurality of frame energies.

19. The method of claim 18 wherein said sequence of code symbols are
2 supplied by a Viterbi decoder.

20. The method of claim 18 wherein each of said plurality of tentative
2 frame rates is selected from the group consisting of a full rate, a half rate, a
quarter rate, and an eighth rate.

21. The method of claim 18 wherein said final frame rate is selected
2 from the group consisting of a zero rate, a non-zero rate, a full rate, a half rate, a

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quarter rate, and an eighth rate.

22. A method comprising steps of:

2 receiving a sequence of code symbols;

determining a plurality of re-encoded symbol error rates for said sequence

4 of code symbols, each of said plurality of re-encoded symbol error rates

corresponding to one of a plurality of tentative frame rates;

6 determining a plurality of frame energies for said sequence of code

symbols, each of said plurality of frame energies corresponding to one of said

8 plurality of tentative frame rates;

determining a final frame rate of said sequence of code symbols based on
10 said plurality of re-encoded symbol error rates and said plurality of frame
energies.

23. The method of claim 22 wherein said sequence of code symbols are
2 supplied by a Viterbi decoder.

24. The method of claim 22 wherein each of said plurality of tentative
2 frame rates is selected from the group consisting of a full rate, a half rate, a
quarter rate, and an eighth rate.

25. The method of claim 22 wherein said final frame rate is selected
2 from the group consisting of a zero rate, a non-zero rate, a full rate, a half rate, a

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quarter rate, and an eighth rate.

26. A receiver comprising:

- 2 a decoder configured to receive and decode a sequence of code symbols;
a rate decision block coupled to an output of said decoder, said rate
4 decision block configured to determine a plurality of frame energies for said
sequence of code symbols, each of said plurality of frame energies corresponding
6 to one of a plurality of tentative frame rates;
said rate decision block further configured to determine at least one final
8 frame rate when said plurality of frame energies meet a desired condition.

27. The receiver of claim 26 wherein said decoder is a Viterbi decoder.

28. The receiver of claim 26 wherein each of said plurality of tentative
2 frame rates is selected from the group consisting of a full rate, a half rate, a
quarter rate, and an eighth rate.

29. The receiver of claim 26 wherein said final frame rate is selected
2 from the group consisting of a zero rate, a non-zero rate, a full rate, a half rate, a
quarter rate, and an eighth rate.

30. The receiver of claim 26 wherein said rate decision block
2 determines said at least one final frame rate when said plurality of frame energies

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and a pilot channel energy meet said desired condition.

31. The receiver of claim 26 wherein said desired condition indicates
2 whether a combination of said plurality of frame energies exceeds a threshold
energy.

32. The receiver of claim 31 wherein said combination of said plurality
2 of frame energies comprises obtaining respective results of multiplications of each
one of said plurality of frame energies by respective parameters and adding said
4 respective results.

33. The receiver of claim 26 wherein said desired condition indicates
2 whether a combination of said plurality of frame energies and a pilot channel
energy exceed a threshold energy.

34. The method of claim 33 wherein said combination of said plurality
2 of frame energies and said pilot channel energy comprises obtaining respective
results of multiplications of each one of said plurality of frame energies and said
4 pilot channel energy by respective parameters and adding said respective results.

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